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PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PAT 53966W-90	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)						
International application No. PCT/CA 03/01105	International filing date (day/month) 23.07.2003	Priority date (day/month/year) 23.07.2002					
International Patent Classification (IPC) or both national classification and IPC							
G09G3/36							
Applicant RESEARCH IN MOTION LIMITED et al.							
This international preliminary exa Authority and is transmitted to the	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.						
2. This REPORT consists of a total	. This REPORT consists of a total of 8 sheets, including this cover sheet.						
been amended and are the	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).						
These annexes consist of a total	of 2 sheets.						
3. This report contains indications r	. This report contains indications relating to the following items:						
Basis of the opinion							
II ☐ Priority III ☐ Non-establishment of	foninion with regard to novelty in	nventive step and industrial applicability					
		ivenure step and industrial approars					
V ⊠ Reasoned statement							
VI Certain documents ci	* * * * * * * * * * * * * * * * * * * *						
	international application						
	on the international application						
Date of submission of the demand		completion of this report					
13.02.2004		07.10.2004					
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International application No.

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I. Bas	sis of	the	repo	ort
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1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Des	cription, Pages						
	1-9		as originally filed					
	Clai	ims, Numbers						
1-9			received on 22.09.2004 with letter of 22.09.2004					
	Dra	wings, Sheets						
	1/5-	5/5	as originally filed					
2.	With lang	regard to the language , all the elements marked above were available or furnished to this Authority in the uage in which the international application was filed, unless otherwise indicated under this item.						
	The	se elements were av	ailable or furnished to this Authority in the following language: , which is:					
		the language of a tra	enslation furnished for the purposes of the international search (under Rule 23.1(b)).					
		the language of publ	ication of the international application (under Rule 48.3(b)).					
		the language of a tra Rule 55.2 and/or 55.	inslation furnished for the purposes of international preliminary examination (under 3).					
3.	With inte	n regard to any nucle rnational preliminary	regard to any nucleotide and/or amino acid sequence disclosed in the international application, the: ational preliminary examination was carried out on the basis of the sequence listing:					
		contained in the inte	rnational application in written form.					
		filed together with th	e international application in computer readable form.					
		furnished subsequer	ntly to this Authority in written form.					
		furnished subsequently to this Authority in computer readable form.						
		The statement that t in the international a	he subsequently furnished written sequence listing does not go beyond the disclosure pplication as filed has been furnished.					
		The statement that t listing has been furn	he information recorded in computer readable form is identical to the written sequence ished.					
4.	The	amendments have r	esulted in the cancellation of:					
		the description,	pages:					
		the claims,	Nos.:					
		the drawings,	sheets:					

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5.
This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims

No: Claims 1-9

Inventive step (IS) Yes: Claims

No: Claims 1-9

Industrial applicability (IA) Yes: Claims 1-9

No: Claims

2. Citations and explanations

see separate sheet

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1. The following documents (D) cited in the international search report are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: EP-A-1 006 720 (ALPS ELECTRIC CO LTD) 7 June 2000 (2000-06-07)

D3: WO 01/57838 A (TSUDA ATSUNARI ;SEIKO EPSON CORP (JP)) 9 August 2001 (2001-08-09) (references are made in the following to the family member US2002/0154103, which is assumed to have the same content)

2. Document D1 discloses a method for indicating an event change in a first area of a viewing area of a liquid crystal display, the LCD viewing area having a second area surrounded by said first area, for displaying images (performing a tally lamp indication, a character indication or an image indication in the sub display areas formed around the main display area of a liquid crystal display apparatus used as a viewfinder in a TV camera, D1: sections 0002 to 0004, 0076 to 0079; claims 1 and 2; figure 7, items A to D), the method comprising the steps of:

providing control information (tally-on signal, D1: section 0082; figure 8, item "TALLY_ON");

determining said event change from a list of event changes based on said control information (provision of green and red for the tally lamp function implies that green is selected in case of a first tally lamp event, e.g. camera is selected as the camera sending the image used for the actual TV screen, while red is selected in case of a second tally lamp, e.g. camera is not selected as the camera sending the image used for the actual TV screen; provision of a further color, character information or image information in addition to red and green implies that further events are to be indicated, D1: sections 0004, 0007, 0061, 0062, 0082),

determining a first drive signal for said event change based on said control information (internal-data generation circuit switches information data to be displayed on the sub display area and generates display data according to the data switching signal generated based on the tally-on signal by the data-switching-signal generation circuit, D1: section 0082; figure 8, items "TALLY_ON", "EXTRA_DATA1", "DATA_SELECT_H", 43, 45); and

supplying a first group of pixels in said first area with said first drive signal, said

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first group of pixels comprising at least one pixel, thereby controlling a colour of said first group of pixels with said first drive signal (internal-data generation circuit switches information data to be displayed on the sub display area and generates display data according to the data switching signal generated based on the tallyon signal by the data-switching-signal generation circuit, D1: section 0082; figure 8, items "TALLY_ON", "EXTRA_DATA1", "DATA_SELECT_H", 43, 45; various colour indications as well as characters and images can be displayed in colour in the sub display areas, D1: sections 0061, 0062).

Therefore the method according to D1 contains all the technical features of the present independent claim 1, so that the subject-matter of this claim is not new (Art. 33 (2) PCT).

Furthermore, it is noted that the subject-matter of present independent claim 1 is also fully anticipated by document D3, which discloses a method for indicating an event change in a first area of a viewing area of a liquid crystal display, the LCD viewing area having a second area surrounded by said first area, for displaying images (method of driving an inner region and a peripheral region of an active matrix liquid crystal display panel, the peripheral area comprising a plurality of uppermost and lowermost lines of pixels as well as a plurality of columns of pixels from the left end and from the right end in dependance of the display color of characters, while the inner region comprises all the pixels surrounded by this peripheral area, D3: sections 0030 to 0044; figure 4, items 18, 19; figure 5, items 1, 30 to 37), the method comprising the steps of:

providing control information (display data);

determining said event change from a list of event changes based on said control information (display color of the pixels in the peripheral region is determined in dependance of the display color of characters to facilitate recognition of the characters, i.e. is chosen to be white for black characters, or to be black for yellow characters, D3: sections 0002 to 0005; figure 9; section 0044),

determining a first drive signal for said event change based on said control information (color mask data corresponding to the chosen color, i.e. white display data, is written to the display memory corresponding to the peripheral area, D3: sections 0037 to 0044; figure 5, items 31, 32, 33); and

supplying a first group of pixels in said first area with said first drive signal, said first group of pixels comprising at least one pixel, thereby controlling a colour of said first group of pixels with said first drive signal ("H" level signal with a pulse width in accordance with the color mask data is written to the pixels of the peripheral area, D3: sections 0037 to 0044; figure 5, items 33 to 37, 1).

3. Document D1 discloses further

- that, as claimed in claim 2, the step of providing control information comprises the steps of: inputting control information to an electronic device (signal indicating whether the TV camera is used in broadcasting is sent to the TV camera, D1: sections 0002 to 0004, 0076 to 0082); and sending a signal with said control information to an LCD drive circuit from a controlling element of an electronic device housing said LCD (tally-on signal is sent to luminance control section for sub display areas, wherein an controlling element in the TV camera receiving the signal indicating whether the TV camera is used in broadcasting and sending out the tally-on signal is implicitly included for the skilled person, D1: section 0082; figure 8, items "TALLY_ON", 43),
- that, as claimed in claim 3, the step of providing control information comprises the steps of: using a software program with control information resident on an electronic device; and sending a signal with said control information to an LCD drive circuit from a controlling element of an electronic device housing said LCD (tally-on signal is sent to luminance control section for sub display areas, wherein a software program with control information implemented in a controlling element in the TV camera receiving the signal indicating whether the TV camera is used in broadcasting and sending out the tally-on signal is implicitly included for the skilled person, D1: section 0082; figure 8, items "TALLY_ON", 43),
- the further steps of, as claimed in claim 4, supplying a second drive signal to a second group of pixels in said first area, said second group of pixels comprising at least one pixel; and controlling a colour of said second group of pixels with said second drive signal, thereby creating a pattern within said first area (various color indications using several tally-on signals, or color characters/images can be displayed in the sub display areas, as the pixels in the sub pixel areas can be addressed individually by the gate and source lines, D1: sections 0036 to 0039; figure 1, items FG1 to FGn, HG1 to HGn; 0061, sections 0062, 0076 to 0082; figure 7, items GS3, GS4, FS1, FS2, FG1, FG2, GG2 to GG6, HG1, HG2),

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- that, as claimed in claim 5, the colours of said first and second groups of pixels are dynamically controlled based on images displayed in said second area of said viewing area (tally-on signal indicating whether the TV camera is used in broadcasting and controlling the display in the sub display areas is changed based on the images taken by the TV camera and displayed in the main area, D1: 0002 to 0004, 0076 to 0082),
- that, as claimed in claim 6, said control information is provided at the time of manufacturing an electronic device housing the LCD, or selected by a user during operation of the electronic device (tally-on signal indicating whether the TV camera is used in broadcasting and controlling the display in the sub display areas is changed based on the images taken by the TV camera and displayed in the main area, D1: 0002 to 0004, 0076 to 0082),
- that, as claimed in claim 7, said first drive signal is set to a certain value if an event change has taken place (internal-data generation circuit switches information data to be displayed on the sub display area and generates display data according to the data switching signal generated based on the tally-on signal by the data-switching-signal generation circuit, D1: section 0082; figure 8, items "TALLY_ON", "EXTRA_DATA1", "DATA_SELECT_H", 43, 45),
- that, as claimed in claim 8, said event change is selected from group consisting of: message received, urgent message received, new application in use, backlight turned on, and backlight turned off (tally-on signal indicating whether the TV camera is used in broadcasting and controlling the display in the sub display areas is changed based on the images taken by the TV camera and displayed in the main area, D1: 0002 to 0004, 0076 to 0082).

Therefore the method according to D1 contains all the technical features of the dependent claims 2 to 8 so that the subject-matter of these claims is not new (Art. 33 (2) PCT).

4. The device according to D1 contains all the technical features of the present independent claim 9, as shown in sections 2. and 3. above, so that the subject-matter of this claim is not new (Art. 33 (2) PCT).

Furthermore, it is noted that the subject-matter of present independent claim 9 is

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also fully anticipated by document D3, as shown in section 2. above.

5. As can be seen from document D1, all the claims 1 to 9 are industrially applicable (Art. 33 (4) PCT).